1. If the risk of surgical site infection within 30 days of hernia repair is .1, what is the probability that 20 or more patients in a cohort of 100 experience an infection within 30 days?
2. Continuing from the question above, if a surgeon has fifteen 30-day post-op visits with hernia repair patients, what is the probability that exactly 3 will have experienced a surgical site infection.
3. Continuing from the question above, what is the probability that 3 or fewer patients of the 15 will have experienced a surgical site infection.
4. Continuing from the question above, what is the probability that the first patient of the 15 has experienced a surgical site infection?
5. Continuing from the question above, what is the probability that the last patient of the 15 is the very first of the 15 to have experienced a surgical site infection?